

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended): A process for chemically milling a metal part ~~without causing significant intergranular attack~~ comprising the steps of:

~~providing~~ preparing a milling solution containing nitric acid, hydrofluoric acid, dissolved titanium, a wetting agent, and water;

maintaining said milling solution at a temperature in the range of from ~~about~~ 110 to 130°F; and

immersing said metal part into said milling solution for a time sufficient to mill a desired depth on at least one surface of said part.

Claim 2. (currently amended): A process according to claim 1, wherein said wetting agent comprises a surfactant and said milling solution ~~providing~~ preparing step comprises adding said surfactant to said milling solution in an amount that said milling solution has a surface tension of from ~~about~~ 30 dynes/cm² to ~~about~~ 36 dynes/cm².

Claim 3. (currently amended): A process according to claim 1, wherein said milling solution ~~providing~~ preparing step comprises adding said nitric acid and said hydrofluoric acid so that the ratio of said nitric acid to said hydrofluoric acid is in the range of from ~~about~~ 1:1 to ~~about~~ 2:1.

Claim 4. (currently amended): A process according to claim 3, wherein the ratio of said nitric acid to hydrofluoric acid is in the range of from ~~about~~ 1:1 to ~~about~~ 1.5:1.

Claim 5. (currently amended): A process according to claim 1, wherein said milling solution ~~providing~~ preparing step comprises maintaining said dissolved titanium in an amount up to ~~about~~ 2.5 oz./gal.

Claim 6. (currently amended): A process according to claim 5, wherein said milling solution ~~providing~~ preparing step comprises maintaining said dissolved titanium in an amount up to ~~about~~ 0.5 oz./gal.

Claim 7. (currently amended): A process according to claim 5, wherein said milling solution ~~providing~~ preparing step comprises maintaining said dissolved titanium in an amount up to ~~about~~ 1.5 oz./gal.

Claim 8. (currently amended): A process according to claim 5, wherein said milling solution ~~providing~~ preparing step comprises maintaining said dissolved titanium in an amount from ~~about~~ 1.5 oz./gal. to ~~about~~ 2.5 oz./gal.

Claim 9. (original): A process according to claim 1, wherein said wetting agent comprises a fluorosurfactant.

Claim 10. (original): A process according to claim 1, wherein said part is formed from a titanium alloy.

Claim 11. (original): A process according to claim 1, further comprising adding to said solution at least one material which increases the milling rate of said solution.

Claim 12. (currently amended): A process according to claim 11, wherein said at least one material adding step comprises adding urea in an amount greater than ~~about~~ 20 grams per liter.

Claim 13. (currently amended): A process according to claim 11, wherein said at least one material adding step comprises adding dissolved palladium in an amount greater than ~~about~~ 10 ppm.

Claim 14. (currently amended): A process according to claim 13, wherein said at least one material adding step comprises adding said dissolved palladium in an amount in the range of from ~~about~~ 50 ppm to ~~about~~ 200 ppm.

Claim 15. (currently amended): A process according to claim 1, wherein said maintaining step comprises maintaining said solution at a temperature in the range of from ~~about~~ 115°F to ~~about~~ 125°F.

Claims 16 – 28 (cancelled)

Claim 29. (new): A process for chemically milling a part comprising the steps of:

preparing a milling solution containing nitric acid, hydrofluoric acid, dissolved titanium, a surfactant, and water;

said preparing step comprising providing said nitric acid and said hydrofluoric acid in a ratio of said nitric acid to said hydrofluoric acid in the range of from 1:1 to 2:1;

said preparing step further comprising adding said surfactant in an amount such that said milling solution has a surface tension of from 30 dynes/cm² to 36 dynes/cm²;

maintaining said milling solution at a temperature in the range of from 110 to 130°F; and

immersing said metal part into said milling solution for a time sufficient to mill a desired depth on at least one surface of said part.